

THEATRE SOUND: Thriller the musical



by **Andrew Low**

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The new West End production *Thriller* is based on the events and music of Michael Jackson's career. Held at the Lyric theatre, sound designer Chris Whybrow was tasked with creating a system for the show that would accurately reproduce everything from Jackson's rock anthems to his smooth ballads.

Thriller is held in a very crowded RF area, which made finding a free radio frequency for the show a difficult task. Whybrow worked with [Shure UK](#) to find the best frequency and design wireless systems that would not suffer from interference from other shows in the West End. As such, Shure specified the Q5 frequency band for the show.

Whybrow comments: "The West End is so crammed with different frequencies, so we are using Q5. Shure was really good at making certain that we were out of the way of other theatres. They programmed our system and we have no intermodulation from any of the shows near us. Our signal is so strong in the building that I don't think anything could get through it."

Shure provided six of its UR4D wireless receivers, complemented by seven UR2 KSM9 mics and five UR1 wireless body packs. Two of its UA845 antenna distribution units are also in use along with the UA870WB Active antenna system. Up to 12 cast members use the wireless mics during the show.

Its UR4D dual-channel wireless receiver provides 2400 selectable frequencies across 60 MHz bandwidth, up to 60 preset compatible systems/band (140 w/multiple bands, region dependent) and flash memory capable of storing six 60-channel custom frequency groups. It also features Shure's patented audio reference companding, built-in USB and Ethernet network compatibility and track tuning filtering technology.

Featuring a dual-diaphragm design unique to handheld mics, Shure's KSM9 dual-diaphragm condenser microphones provide switchable cardioid and supercardioid polar patterns and advanced two-stage shock mount suspension designed for rugged performance. The mics also feature a frequency response ranging from 50Hz - 20KHz and uniform polar response for natural off-axis response.

After securing radio frequencies for the show, Whybrow was further tasked with providing uniform coverage for the four-tiered 900+ capacity venue. Another detail standing in the way, literally, of providing coverage to all seats in the theatre involves the audience's propensity to get up and dance during the performance. "It is hard to cover all the different levels in the Lyric," states Whybrow.

"We used a lot of calculations because there are a lot of different heights for the audiences when they are all sitting down, but when the audiences gets up to dance during the show you have to get those high frequencies to the back of the room. We had to configure the best heights for the rigging so that we could still get the sound to the back of the theatre in both instances."

Mixed on a Yamaha PM5D at FOH, the main PA for the show is a d&b Audiotechnik Q-Series line array system with Q and B2 subs. Additional d&b Q7 boxes are used as sidefill. The company's E3 speakers are also on stage to provide monitoring for the cast, mixed on Yamaha's LS9 desk. Whybrow explains: "We definitely had to have a system that had enough balls so people can feel the music when it is really driving, as well as one that would keep it nice and warm for the ballads. I used The Q-Series on the European tour of this show and it adapted nicely to every venue. The Lyric is a four-level theatre, so we are covering each level with Q1s split into pairs so that we get maximum output control, because the songs are so different from one another."

A traditional seven-piece rock band provides the soundtrack for the show along with the extra effects and percussion played on a computer with Logic Pro. The PM5D is equipped with an Aviom card and the band members each have Pro 16 mixers.

Having worked with the PM5D on the touring version of the show, Whybrow has enjoyed using the Yamaha

board specifically for its scene storing features and warm sound, stating that its compact format is essential to the show. "We are using all the boards effects and dynamics. The space where you have to fit the mixer in the theatre is very limited and we literally only have room to fit the PM5D between the two pillars with a couple of racks underneath. I have really learned to like Yamaha's digital consoles. The technology is now at the point that you don't get the feeling of isolated sounds that are hard to stitch together. I can just up the word clocks so they are handling more sampling rates and it sounds a lot smoother."

The systems chosen for the set up at the Lyric is mirrored on the road as Whybrow's satisfaction with the system lead him to spec it for the touring version of the show. He feels that the versatility of both the d&b Q-Series and Yamaha's consoles make setting up the system easy and allows sight lines and a small footprint to be maintained in each venue. As for the West End show, the daily performances continue to run smoothly without interference from outside theatres due to Shure's technical diligence and support.

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